

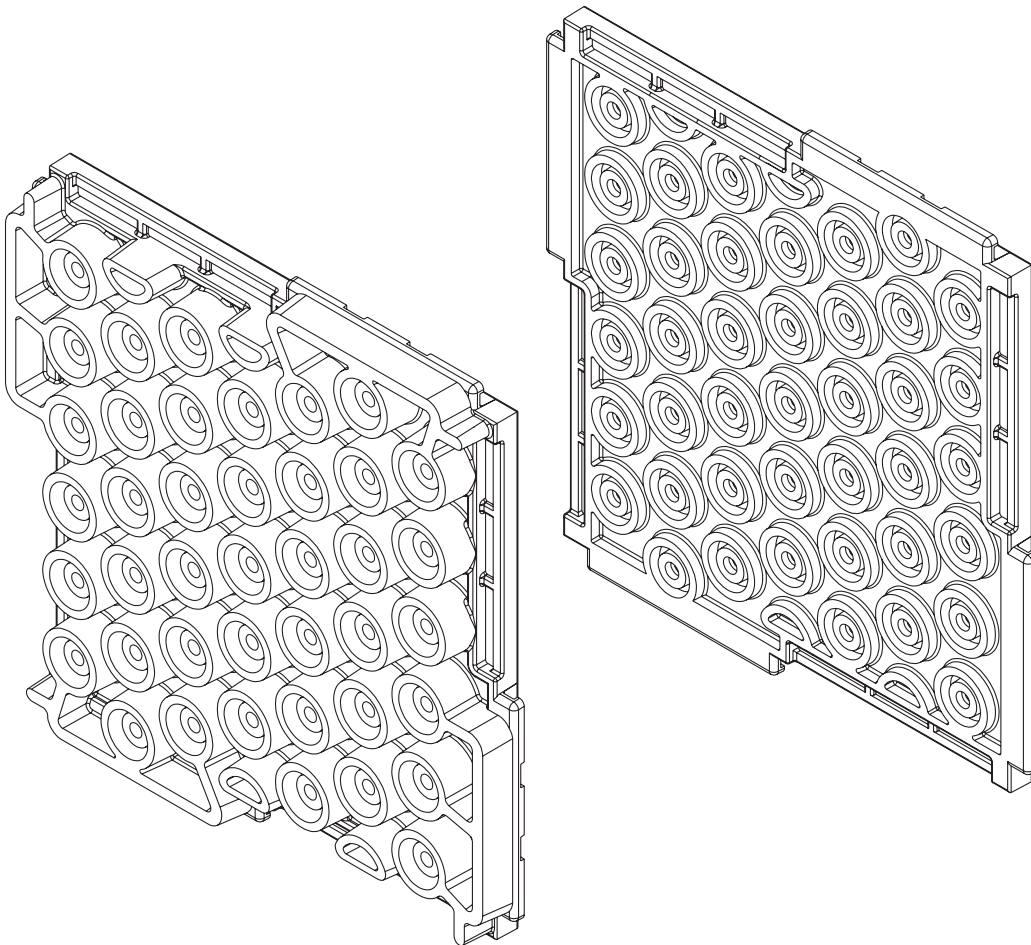


**It's not magic, it's engineering.®**

Impact Sound Control

# GENIEMAT<sup>®</sup> FIT

For Weight Drop Impact Insulation



# GENIEMAT® FIT

## All-in-one fitness flooring



### PRODUCT FEATURES

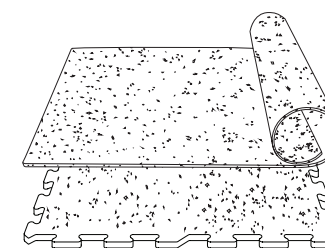
GenieMat FIT is an all-in-one fitness floor made from recycled rubber, engineered to reduce structure-borne sound and vibration transmission in concrete, wood frame and metal deck construction.

GenieMat FIT floors dramatically reduce low frequency impact noise in free weight areas, under cardio equipment and in fitness studios.

	GenieMat FIT08		GenieMat FIT30	GenieMat FIT70
Weight/sf	1.7 - 2.2 lb (0.8 - 1.0 kg)		5.2 lb (2.3 kg)	9.2 lb (4.2 kg)
Thickness	5/16" (8 mm)		1 1/4" (30 mm)	2 3/4" (70 mm)
Installed Dimension	48" x 25' (1220 mm x 7620 mm)	23 1/8" x 22 7/8" (587 mm x 581 mm)	23 7/8" x 23 7/8" (607 mm x 607 mm)	23 7/8" x 23 7/8" (607 mm x 607 mm)
Product Type	Roll	Puzzle	Interlocking Tile	Interlocking Tile

All listed dimensions are nominal.

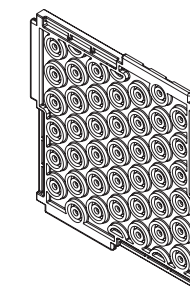
GenieMat FIT30 and GenieMat FIT70 have a product and installed dimension tolerance of +/- 1/8".



### GenieMat® FIT08

#### APPLICATIONS

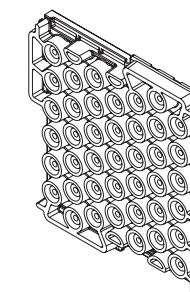
- Entryways/corridors
- Group fitness areas
- Locker rooms
- Spinning studios



### GenieMat FIT30

#### APPLICATIONS

- Cardio studios
- Personal training areas
- Machine areas



### GenieMat FIT70

#### APPLICATIONS

- High impact studios
- Free weight/dumbbell areas

# ENGINEERED FOR PERFORMANCE

## GenieMat® FIT DESIGN CRITERIA

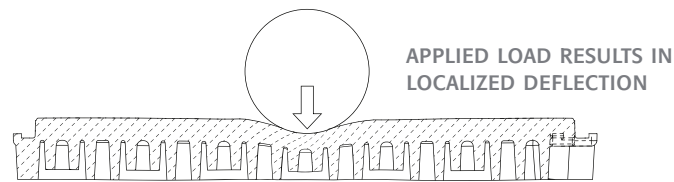
### SIGNIFICANTLY REDUCES STRUCTURE-BORNE VIBRATION

- Low dynamic stiffness for improved low frequency response
- Engineered dual cylinder pedestals reduce vibration transmission
- Decreased impact force exposure level as measured using heavy/hard impact sources

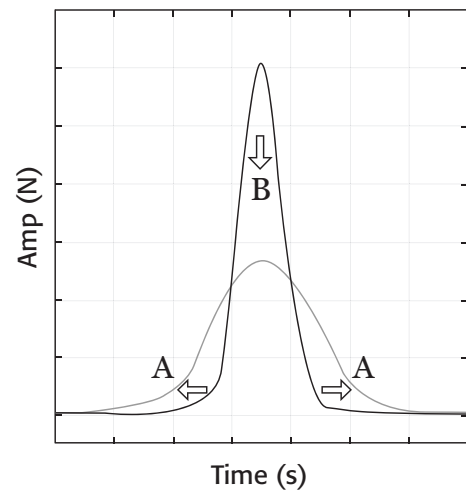
### SEAMLESS, INTERLOCKING FIT

- Tiles are installed in compression to have a seamless aesthetic and eliminate seam separation over time
- Seam compression of 59 lbf/in (10.3 N/mm)

### DESIGN OBJECTIVES OF A LOCALLY REACTIVE TILE

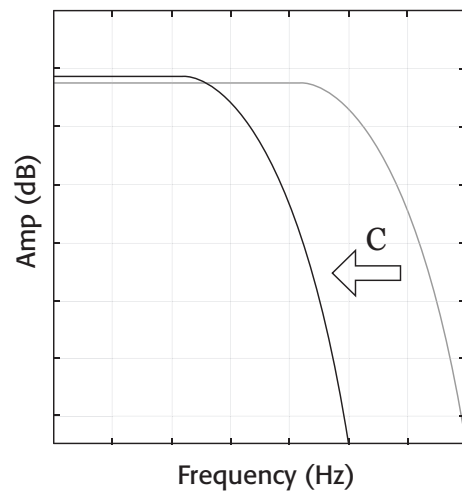


#### TIME DOMAIN FORCE PULSE



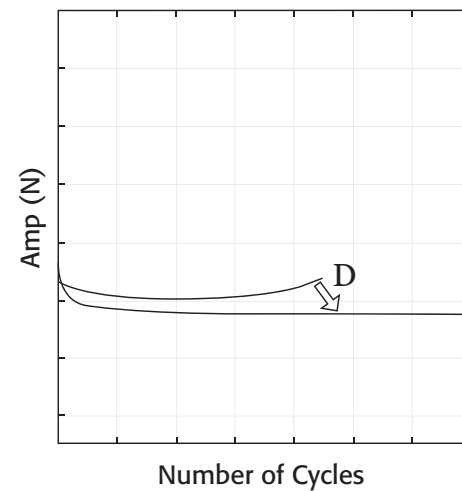
- A. Extending contact time improves lower frequency attenuation
- B. Reducing peak force value reduces overall sound pressure level

#### FREQUENCY DOMAIN FORCE PULSE



- C. Reducing 3 dB down point frequency improves lower frequency attenuation

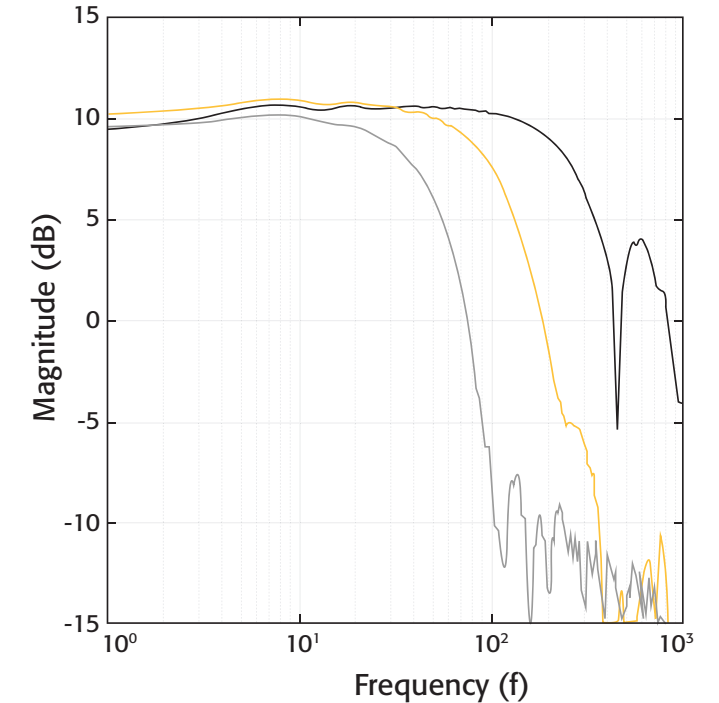
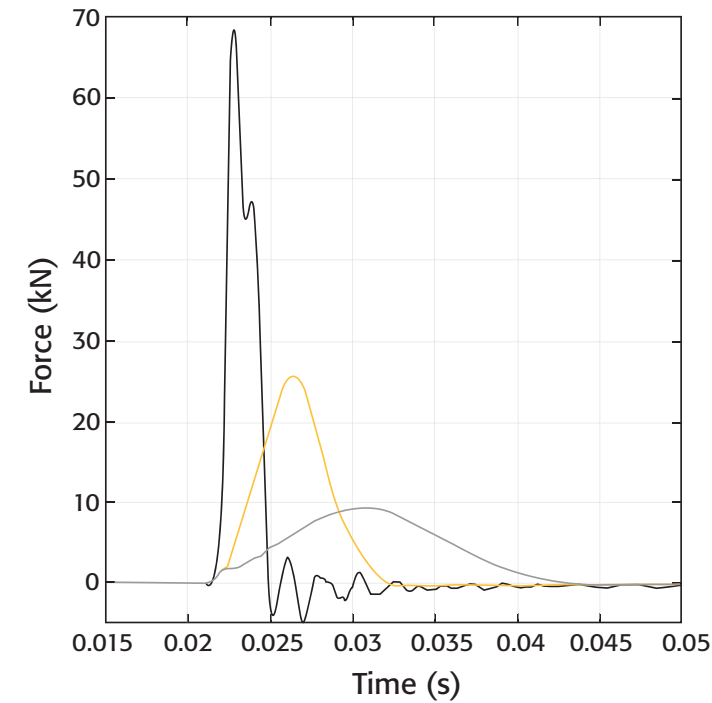
#### DURABILITY



- D. Flattening out durability curve equates to improved product lifetime
- Plot of peak force values taken from repeated force pulse measurements

## FORCE PULSE MEASUREMENTS OF GENIEMAT® FIT SYSTEMS

- Can be used to predict in-situ performance. Contact **Pliteq** for *Internoise 2018* paper and methodology



- GenieMat FIT08
- GenieMat FIT30
- GenieMat FIT70

- GenieMat FIT08
- GenieMat FIT30
- GenieMat FIT70

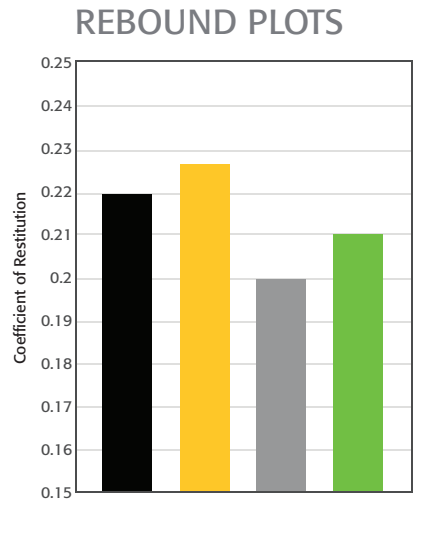
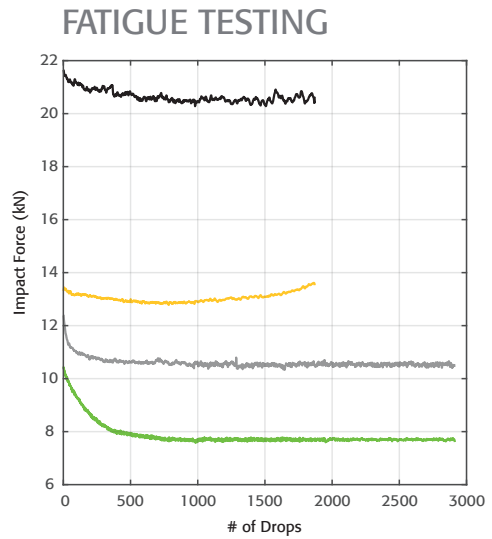
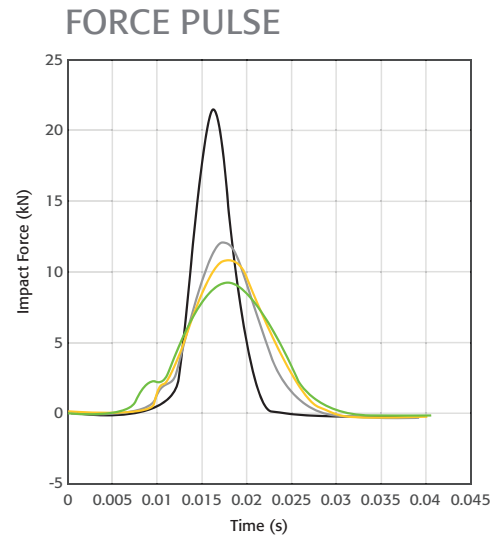
## ENGINEERING DESIGN CHARACTERISTICS

TEST RESULTS				
TEST DESCRIPTION	STANDARD REFERENCE	GenieMat FIT08	GenieMat FIT30	GenieMat FIT70
Slip Resistance	ASTM D2047	0.90	0.81	0.81
Tensile Strength	ASTM D412	250 psi	107 psi	92 psi
CHPS Section 01350	ASTM D5116	Pass	Pass	Pass
Chemical Resistance	ASTM F925	No Change	No Change	No Change
Impact Force Exposure Level	ISO 10140 - Part 5	43 dB	41 dB	39 dB
Critical Radiant Flux	ASTM E648	Class I /Class II*	Class I /Class II*	Class I /Class II*

\*Class I available upon request.

# GENIEMAT® xFIT

## GenieMat xFIT TESTING



- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

- GenieMat FIT30
- GenieMat FIT70
- GenieMat xFIT70
- GenieMat xFIT100

## ENGINEERING DESIGN CHARACTERISTICS

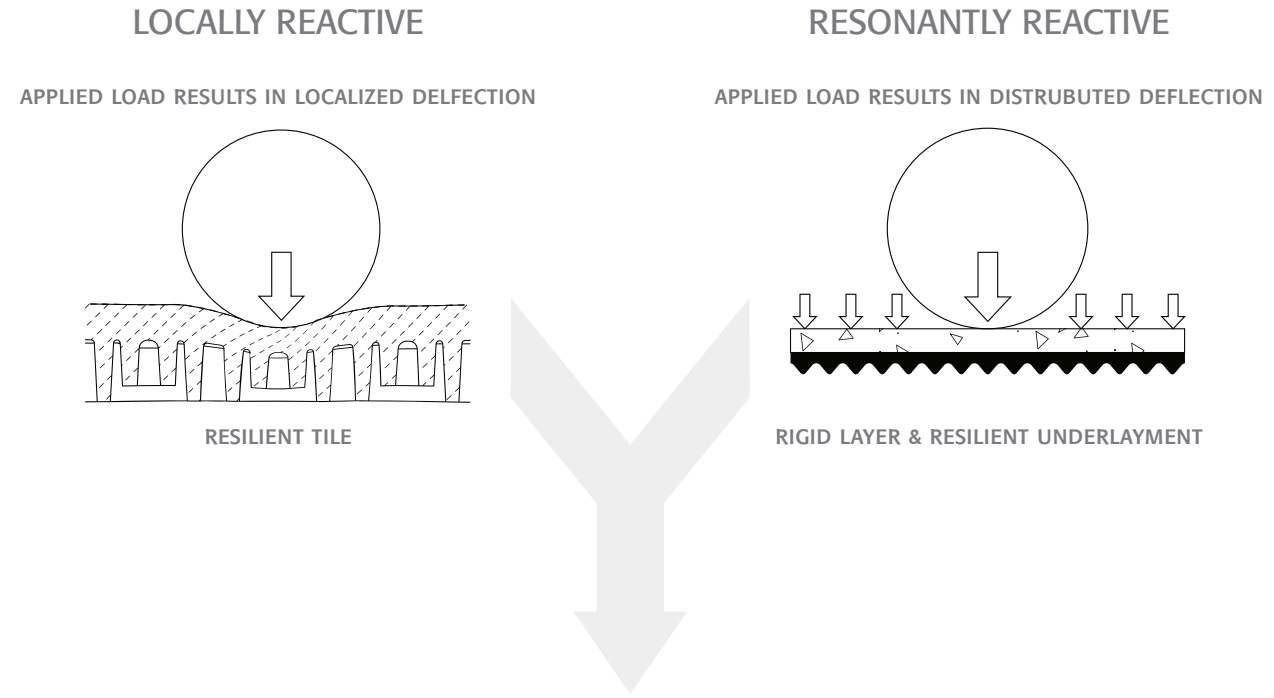
	GenieMat xFIT70	GenieMat xFIT100
Weight/sf	9.3 lb/sf (4.2 kg/sf)	11.6 lb/sf (5.3 kg/sf)
Thickness	2 3/4" (70 mm)	4" (100 mm)
Product Finish	Interlocking Tile	Interlocking Tile

## PLATFORMS

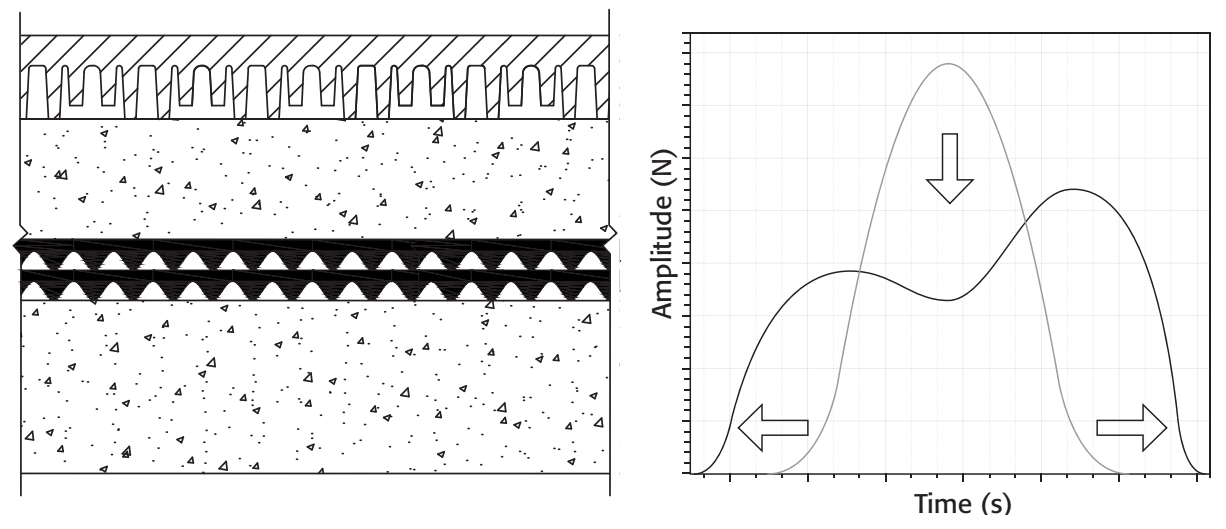


# HYBRID SYSTEM

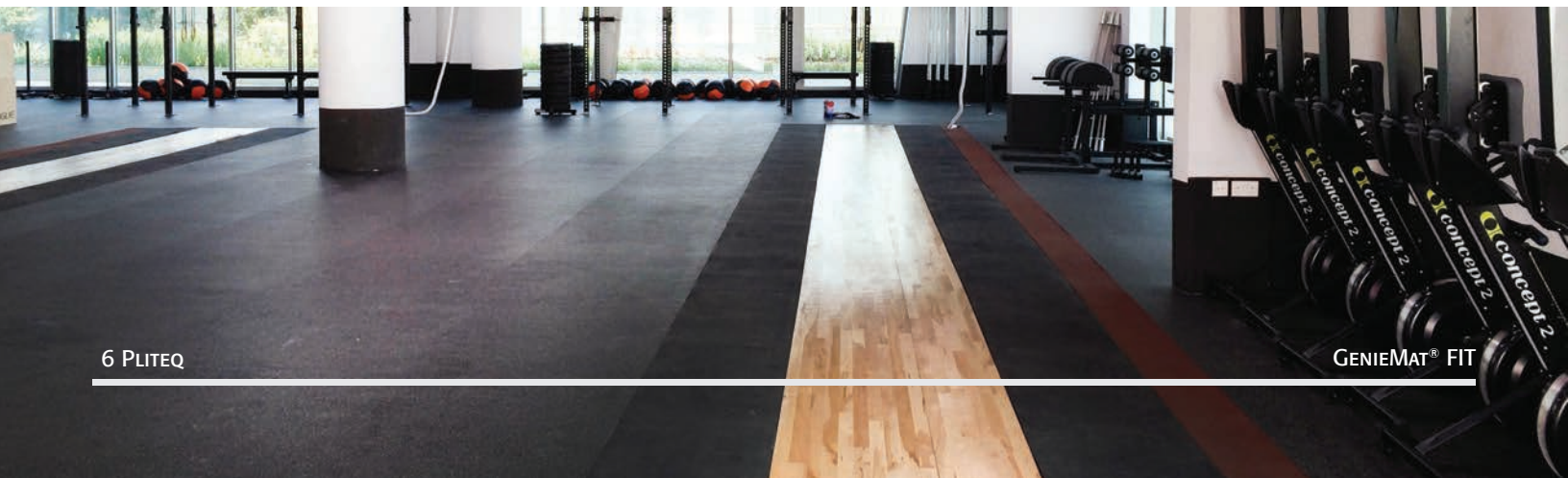
## WITH GenieMat® FIT AND GenieMat FF



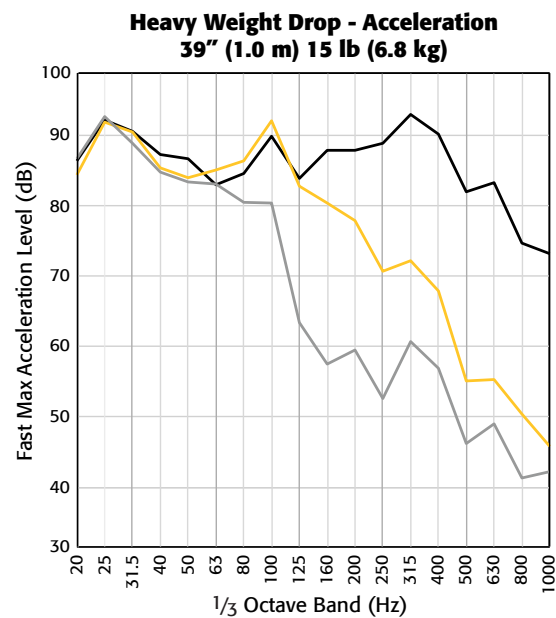
LOCALLY REACTIVE ABOVE RESONANTLY REACTIVE CREATES A HYBRID SYSTEM



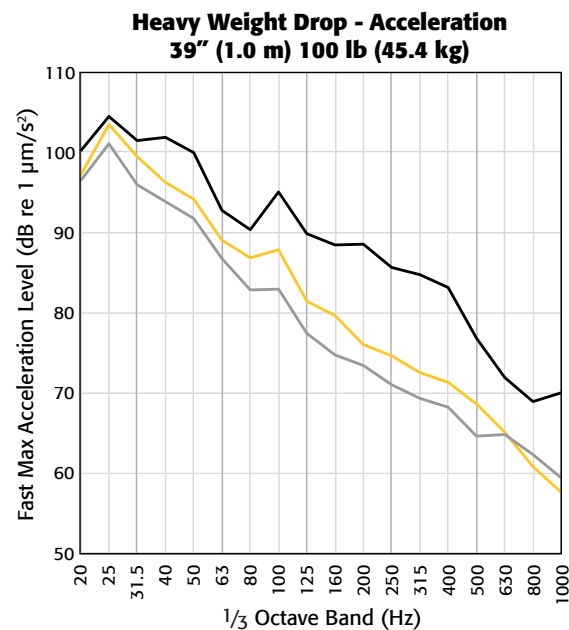
- Helps reduce impact force amplitude and increase force impulse duration
- Ideal for rhythmic excitation such as dance studios and treadmill bays



# TILE DATA

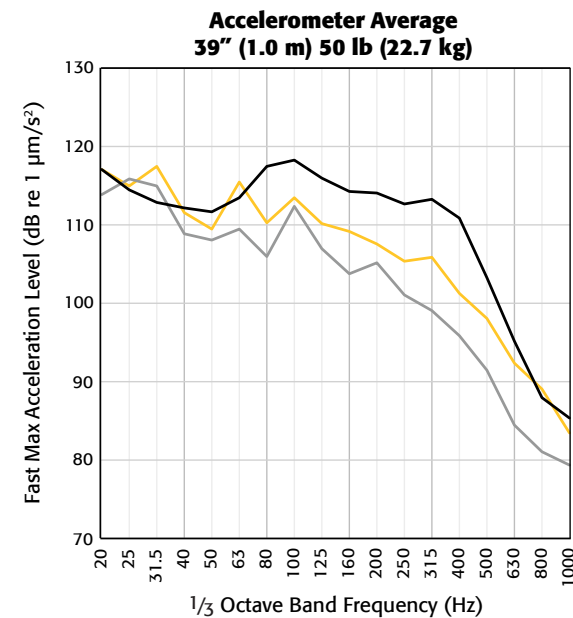


- E5600.12 **GenieMat FIT08**
- E5600.14 **GenieMat FIT30**
- E5600.15 **GenieMat FIT70**

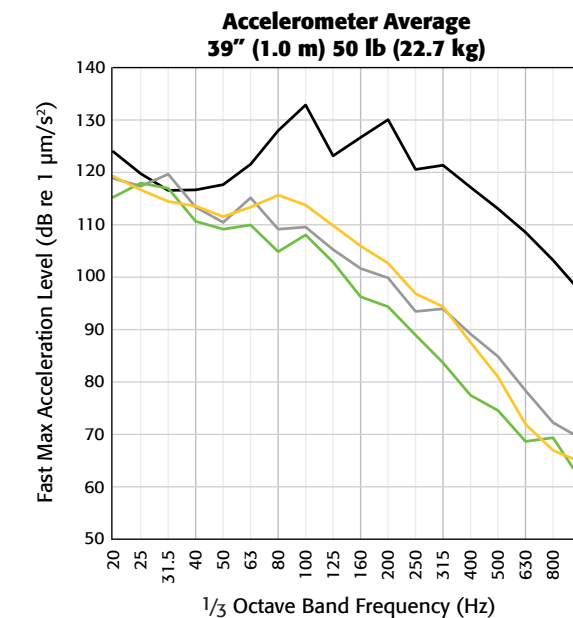


- E5600.15 **GenieMat FIT70**
- E5600.16 **GenieMat xFIT70**
- E5600.17 **GenieMat xFIT100**

# CONCRETE HYBRID

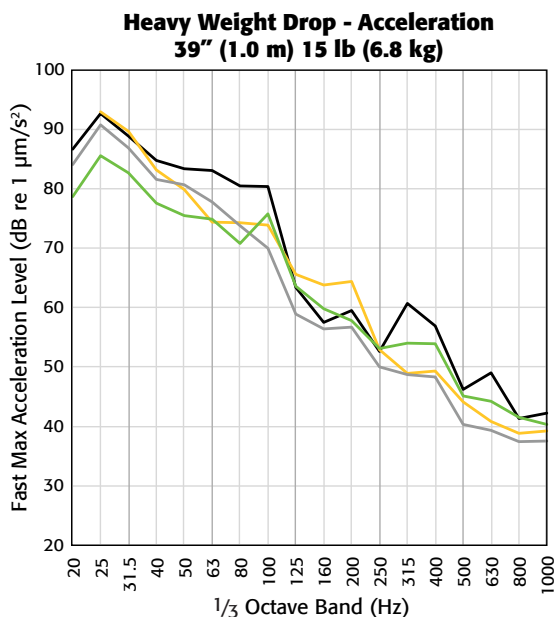


- A1-008867-01F **GenieMat FIT08, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT08, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT08, 4" FCS, GenieMat FF70LDM**

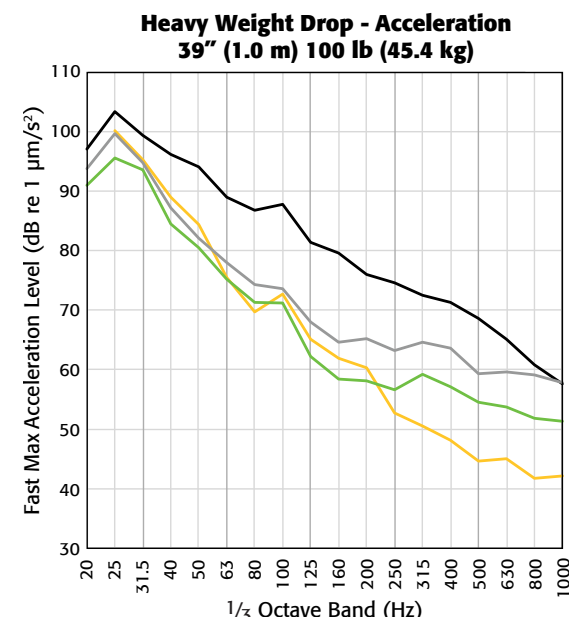


- A1-008867-00F **GenieMat FIT30**
- A1-008867-01F **GenieMat FIT30, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT30, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT30, 4" FCS, GenieMat FF70LDM**

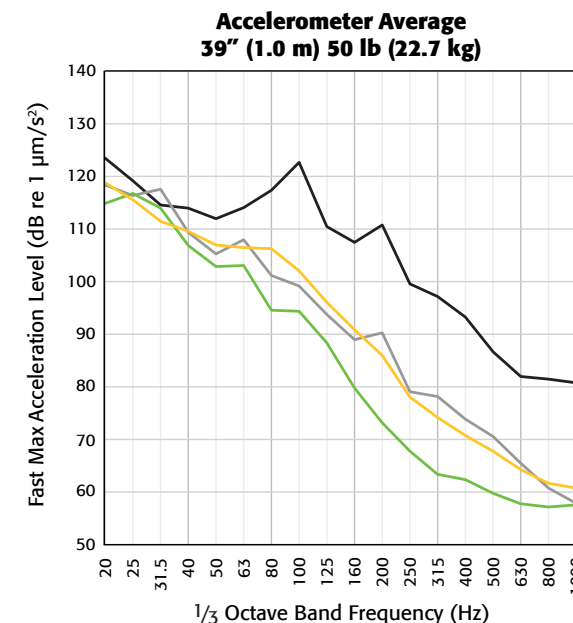
# PLYWOOD HYBRID



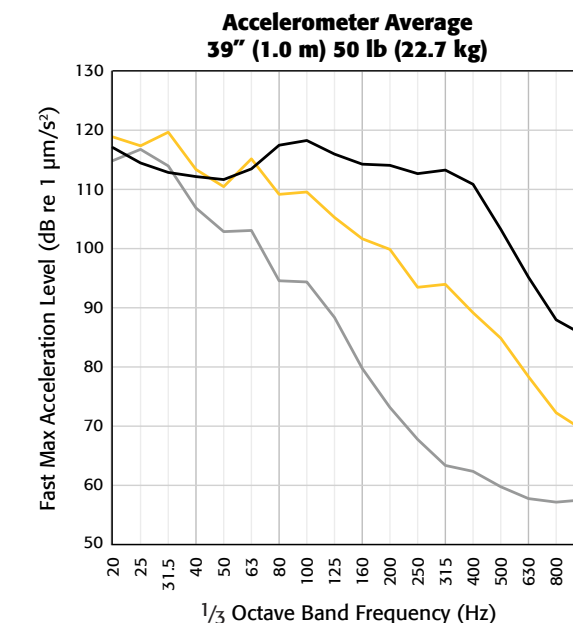
- E5600.15 **GenieMat FIT70**
- E5600.26 **GenieMat FIT70, 1/2" Cement Board, GenieMat FF25**
- E5600.29 **GenieMat FIT70, 3/4" Plywood, GenieMat FF70**
- E5600.31 **GenieMat FIT70, 3/4" Plywood, GenieMat FF70LDM**



- E5600.16 **GenieMat xFIT70**
- E5600.27 **GenieMat xFIT70, 1/2" Cement Board, GenieMat FF25**
- E5600.30 **GenieMat xFIT70, 3/4" Plywood, GenieMat FF70**
- E5600.32 **GenieMat xFIT70, 3/4" Plywood, GenieMat FF70LDM**



- A1-008867-00F **GenieMat FIT70**
- A1-008867-01F **GenieMat FIT70, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT70, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT70, 4" FCS, GenieMat FF70LDM**

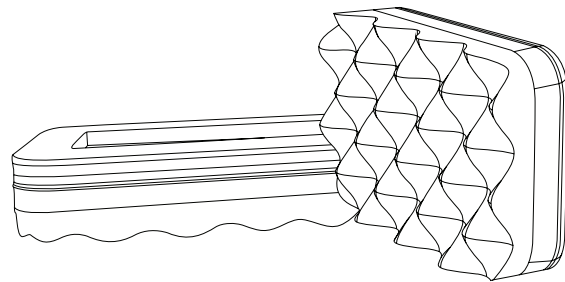


- A1-008867-01F **GenieMat FIT08, 4" FCS, GenieMat FF50**
- A1-008867-04F **GenieMat FIT30, 4" FCS, GenieMat FF70**
- A1-008867-05F **GenieMat FIT70, 4" FCS, GenieMat FF70LDM**

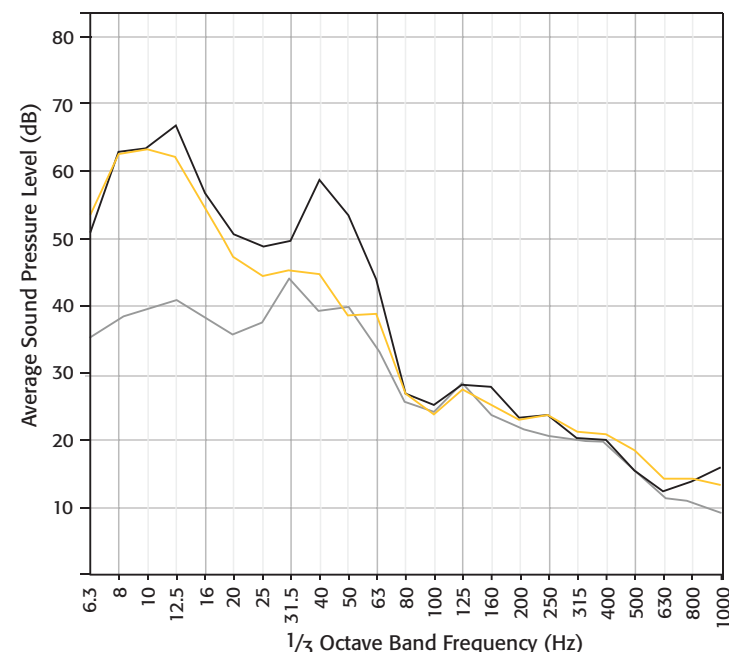
## GENIEMAT<sup>®</sup> TMIP TREADMILL ISOLATION PADS

U.S Patent No.: 8,113,495  
Canadian Patent No.: 2,505,938

**GenieMat TMIP** are inherently non-slip. Custom sizes are available for other special applications.



STANDARD THICKNESS	2"
STANDARD SIZES	5" x 18" – Front Mounts 5" x 7" – Rear Mounts
STATIC DEFLECTION	Lightweight case: 100 lb user 1.46 psi deflection 1 to 2 cm Heavyweight case: 300 lb user 2.76 psi deflection 2 to 3 cm



### ENGINEERED TO REDUCE LOW FREQUENCY IMPACT

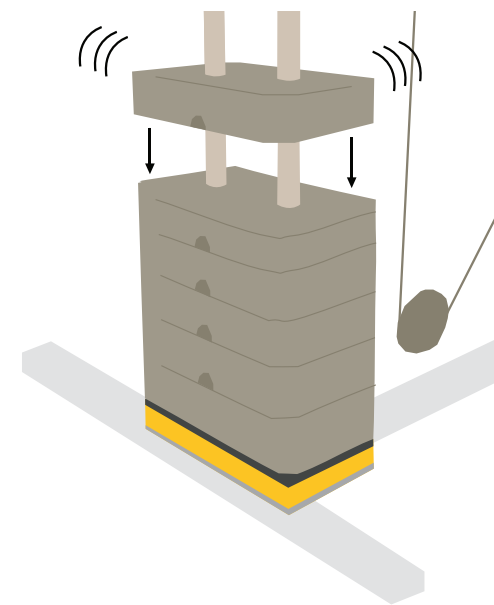
Field Measured Average Sound Pressure Levels

- Running with 1 layer of 3/4" rubber
- Running with **GenieMat<sup>®</sup> TMIP** on 1 layer of 3/4" rubber
- Ambient sound level, no running

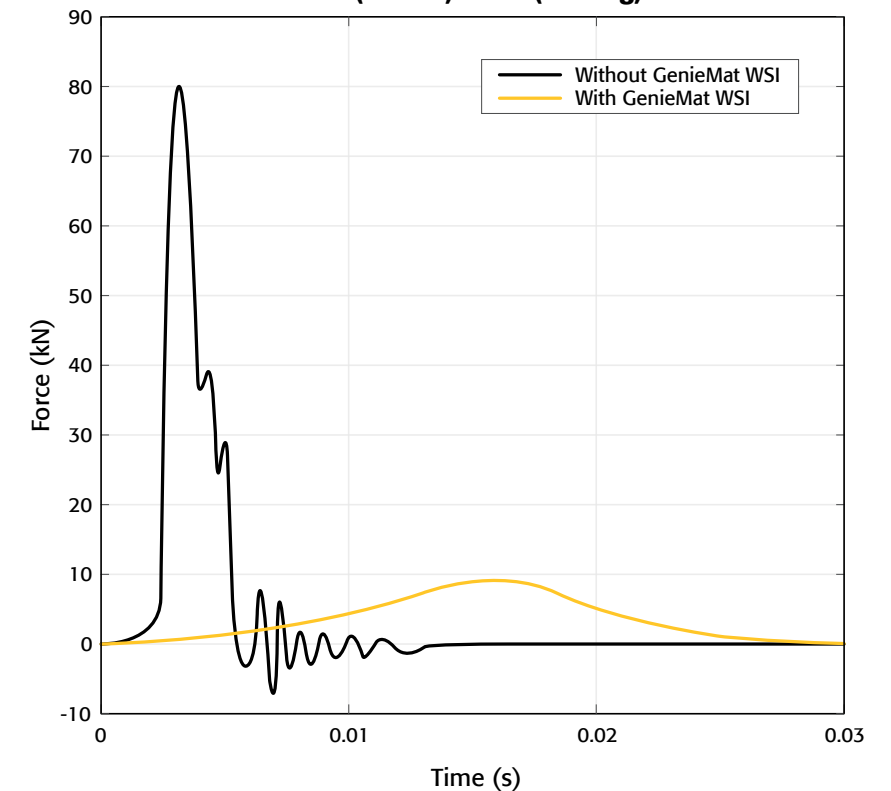
## GENIEMAT<sup>®</sup> WSI WEIGHT STACK ISOLATORS

**GenieMat WSI** isolates impact noise from selectorized machines.

- Reduce impact noise at the source
- Customized size to fit every weight stack
- Installation does not require machine disassembly

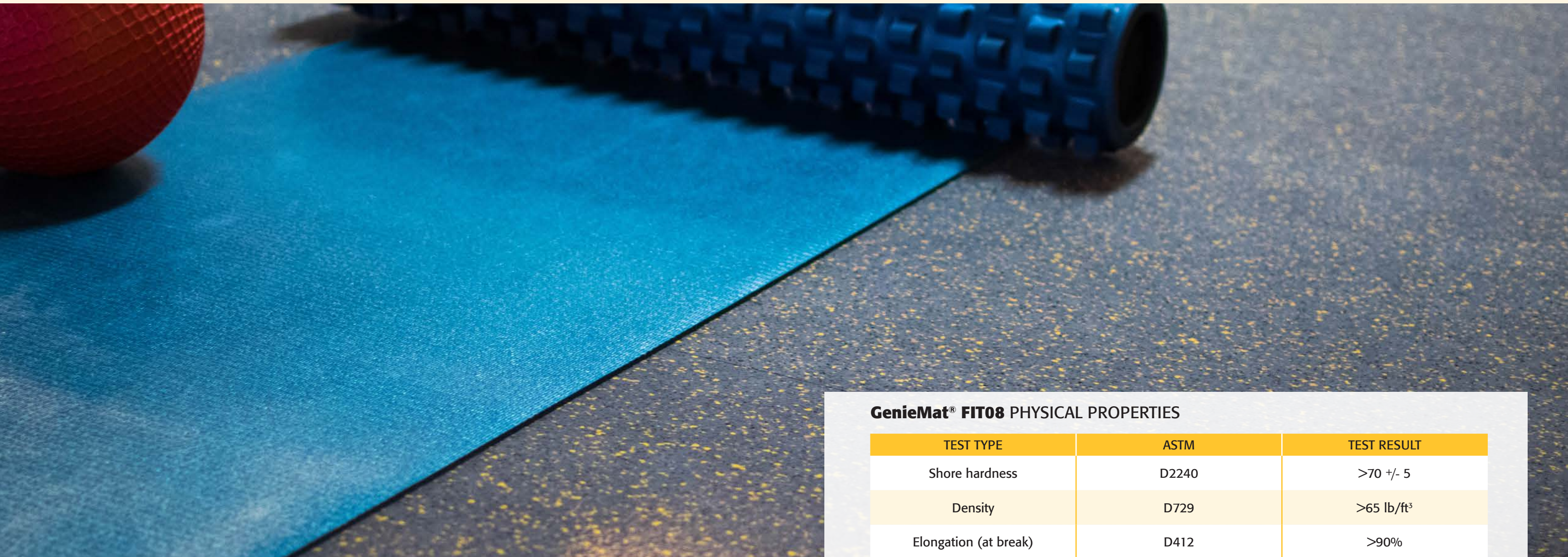


### Force Pulse Comparison 20" (0.5 cm) 50 lb (22.7 kg)



## GENIEMAT<sup>®</sup> FIT ACCESSORIES

- Customized on site to accommodate any threshold
- Accessories for all installation types
- Corner transitions created in the field
- GenieMat FASHM** adhesive
- ADA compliant ramps available
- Load plates available to accommodate high point loads

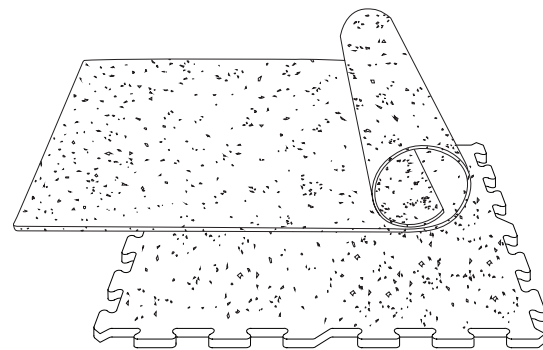


# GENIEMAT® FIT08

## Fitness Flooring Rolls & Puzzle Tiles

A protective, wear-resistant finished floor used in entryways, corridors, group fitness areas, locker rooms and spinning studios.

Our standard, the **GenieMat® FIT08** (8 mm) is also available in 6mm and 10mm nominal thicknesses. Custom orders can be made for any other thickness and combination of EPDM colors. See page 15 for EPDM color options.



### GenieMat® FIT08 PHYSICAL PROPERTIES

TEST TYPE	ASTM	TEST RESULT
Shore hardness	D2240	>70 +/- 5
Density	D729	>65 lb/ft <sup>3</sup>
Elongation (at break)	D412	>90%
Tensile strength	D412	>300 psi
Taber abrasion	C501	0.45
Critical radiant flux	D395	Class I/II*
Flame spread	E84	135**
Smoke density	E84	<450**
Compression set	ISO 815	5% @ 72 Hrs
Coefficient of friction	D1894-95	Wet 1.20 / Dry 1.20
Tear	D624	5.71 lbf/in
Chemical resistance	F925-02	No Change

\* Class I available upon request.

\*\* Same as carpet and wood.

# COLOR SELECTION

## GenieMat® FIT30 & GenieMat FIT70

### CLASSIC SERIES

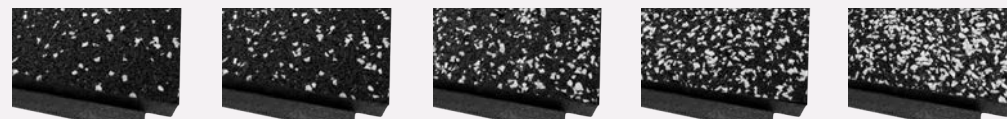
Simple yet elegant, these six solid colors are formulated with a pigmented polyurethane binder to liven up the fitness space.



BLACK GRAY BROWN RED BLUE GREEN

### CONSTELLATION SERIES

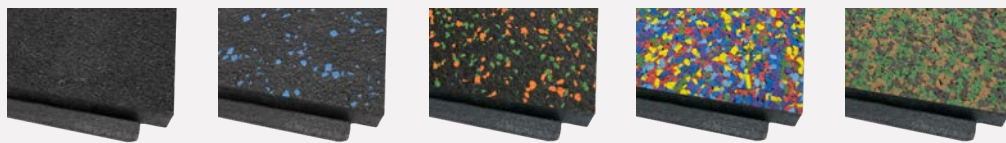
Combining brightly colored EPDM (up to 40%) with the Classic Series black tile provides a beautiful speckled look when a solid color is not desired. See page 15 for EPDM color options.



10% 15% 20% 30% 40%

### FUSION SERIES

A brightly colored 3 mm EPDM (up to 95%) wear layer surface fused with the performance of the **GenieMat FIT** tile provides unlimited colour combinations to pair with any color scheme. See page 15 for EPDM color options.

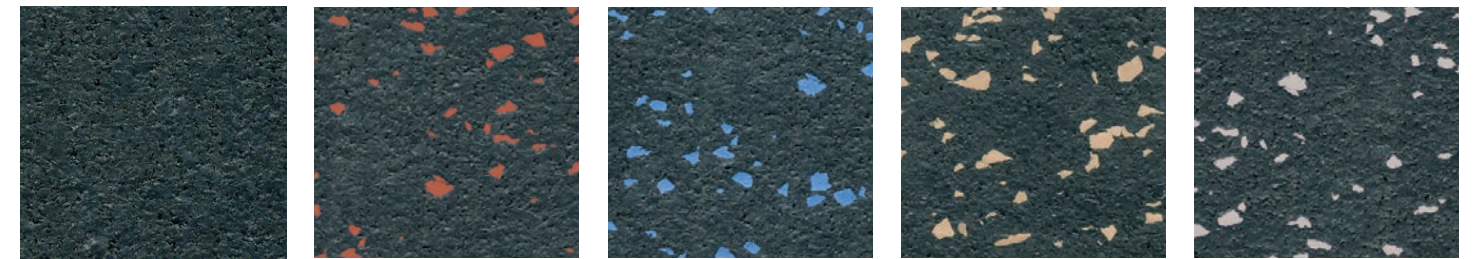


Examples of the unlimited possibilities of a finished floor tile.

## GenieMat® FIT08

### EXPRESS COLORS

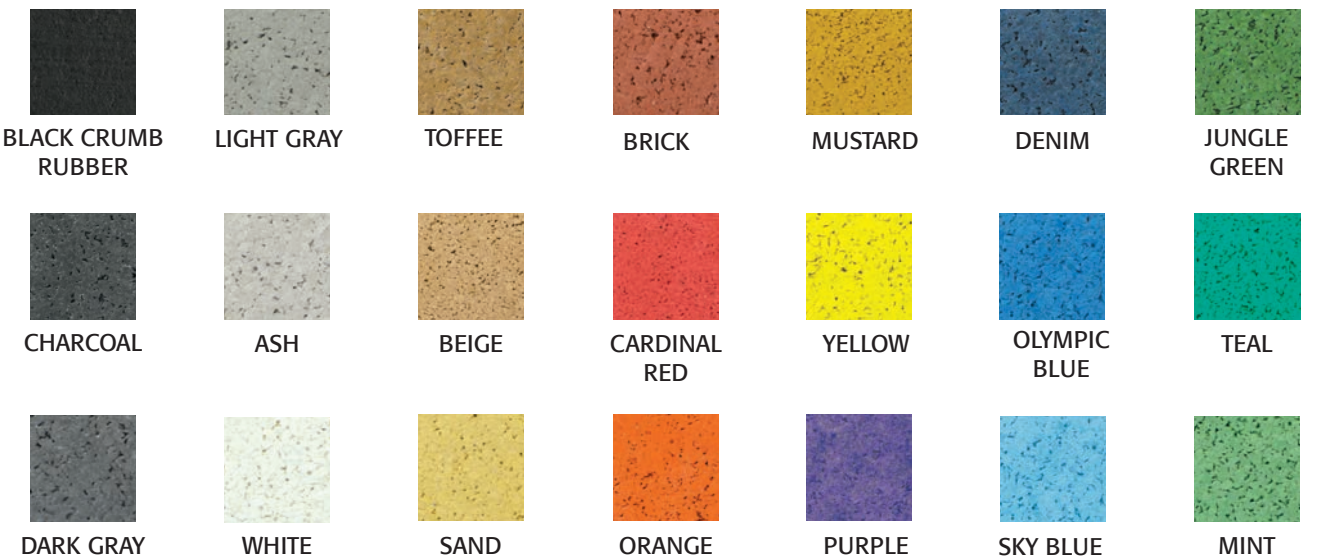
Available in 5 stock colors in roll and puzzle tile format. For more customizable flooring color options, see below for our selection of EPDM colors.



BLACK BRICK OLYMPIC BLUE BEIGE ASH

### EPDM COLORS FOR ANY GENIEMAT® FIT FLOORING

Choose from our selection of 21 colors and combine them together to create a unique flooring blend for your project.



Product colors may vary.  
\*Images are for representation purpose only. Other combinations can be customized.



# TEST RESULTS

TEST RESULTS				
TEST REPORT NUMBER	FINISH FLOOR	SUBFLOOR SYSTEM*	15 lb HARD IMPACT SOURCE (SPL OF COMBINED 63 Hz OCTAVE BAND IN dB)	100 lb HARD IMPACT SOURCE (SPL OF COMBINED 63 Hz OCTAVE BAND IN dB)
E5600.11	Bare	None		
E5600.12	<b>GenieMat® FIT08</b>	None		
E5600.14	<b>GenieMat FIT30</b>	None	84	95
E5600.15	<b>GenieMat FIT70</b>	None	81	84
E5600.16	<b>GenieMat xFIT70</b>	None	81	88
E5600.17	<b>GenieMat xFIT100</b>	None	80	80
E5600.26	<b>GenieMat FIT70</b>	1/2" Cement Board, <b>GenieMat FF25</b>	80	76
E5600.27	<b>GenieMat xFIT70</b>	1/2" Cement Board, <b>GenieMat FF25</b>	79	82
E5600.28	<b>GenieMat FIT30</b>	3/4" Plywood, <b>GenieMat FF70</b>	82	86
E5600.29	<b>GenieMat FIT70</b>	3/4" Plywood, <b>GenieMat FF70</b>	80	76
E5600.30	<b>GenieMat xFIT70</b>	3/4" Plywood, <b>GenieMat FF70</b>	78	81
E5600.31	<b>GenieMat FIT70</b>	3/4" Plywood, <b>GenieMat FF70LDM</b>	74	72
E5600.32	<b>GenieMat xFIT70</b>	3/4" Plywood, <b>GenieMat FF70LDM</b>	72	75
E5600.33	Bare	3/4" Plywood on 2" x 4" Sleepers, Mason MFS Springs	74	89
E5600.34	<b>GenieMat FIT70</b>	3/4" Plywood on 2" x 4" Sleepers, Mason MFS Springs	72	80
E5600.35	<b>GenieMat xFIT70</b>	3/4" Plywood on 2" x 4" Sleepers, Mason MFS Springs	69	82

\* All assemblies on 6" concrete slab with no ceiling.

## CONTACT US

For Your Project Specific Questions  
**T.** 416.449.0049 | **E.** [pgartenburg@pliteq.com](mailto:pgartenburg@pliteq.com)

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